REMARKS

This Response is in reply to the Office Action mailed on July 26, 2006. Claims 1 and 3-12 are pending, and claim 1 has been amended herein to more clearly recite the invention. No new matter has been added. Entry and consideration of the amendments and following remarks is respectfully requested.

REJECTION UNDER 35 U.S.C. § 103(a)

Claims 1 and 3-12 stand rejected under 35 U.S.C. § 103(a) as obvious over Riitano et al. (U.S. Patent No.6,575,747). Applicant reserves the right to challenge the use of the Riitano reference as prior art by antedating the reference. However, at this time, Applicant respectfully traverses the rejection since Riitano neither discloses nor suggests the claimed invention.

Briefly, independent claim 1 recites a root canal instrument having a metallic needle part and a gripping end attached to the upper end of the needle part. The gripping end has an outer surface that is substantially continuous, and has a coefficient of friction that is higher than 0.4, determined as a coefficient of kinetic friction with steel as a material pair. The hardness and thickness of the outer surface of the gripping end are chosen so that the shape of the gripping end is recoverably deformable from a force applied by gripping fingers of a user.

Examiner rejected this claim as obvious over Riitano. Examiner maintains that, although the recited coefficient of friction and range of Shore A hardness are not disclosed by Riitano, the general teachings of Riitano are sufficient to constitute motivation to modify Riitano to have the optimal or workable ranges recited in the claimed invention. (Office Action page 2). Specifically, Examiner states that Riitano discloses a handle made out of deformable plastic having a higher coefficient of friction than metal. Purportedly, this disclosure is sufficient to

provide a suggestion and motivation to modify Riitano to have a handle with a coefficient of friction higher than 0.4 and a hardness and thickness whose shape is recoverably deformable from a force applied by gripping fingers. Applicant respectfully disagrees.

First, Examiner makes no mention of the claimed limitation that the shape of at least the outer surface of the gripping end be *recoverably* deformable and not simply deformable. There is no teaching or suggestion whatsoever in Riitano that the plastic handle be *recoverably* deformable. The disclosure of Riitano simply suggests a means for locking the handle in a latchless chuck. The solution proposed by Riitano is that the retention arms of the chuck press into the deformable handle to grasp it. There is no indication that when the handle is removed from the chuck the handle recovers its original shape.

It is also important to note that Riitano cannot be read to disclose that the plastic material itself used in the handle has greater friction than metal. This would be highly unlikely since plastics generally have a lower coefficient of friction than metals. One skilled in the art would understand the disclosure of Riitano to be referring to hard plastics that include a deformation (especially those having a coefficient of friction typical to plastics used in the root canal needles at the time of Riitano's invention). In other words, Riitano is suggesting that when the retention arms press into and deform the plastic handle, the overall effect is to press the retention arms into the handle thereby creating friction by locking the retention arms in the handle. Riitano is not suggesting that the plastic material itself would have high friction, but rather that the handle construction as a whole would have high friction when deformed. This is in contrast to the claimed invention wherein the outer surface material of the gripping end has a high coefficient of friction regardless of deformation.

As discussed in the description of the current application, the prior art gripping ends that were designed to be used by fingers include various formulations on the surface of their handles to increase friction between the fingers and the handle. Riitano is no different. Rather than rely on the friction of the material itself, as does the claimed invention, Riitano suggests deforming the handle to produce a groove whereby the friction of the handle is increased. The claimed invention is an improvement over the prior art references and Riitano by reciting a material used on the outer surface of the gripping end that itself has a high coefficient of friction, without the need for protrusions, crevices, or deformations. Accordingly, Riitano does not teach an outer surface *material* of the gripping end having a coefficient of friction higher than 0.4.

More importantly, however, is that Riitano cannot be modified as proposed by the Examiner. It is well established that there can be no suggestion to modify a prior art reference if the modification would render the prior art unsatisfactory for its intended purpose. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). (See also MPEP 2143.01(v)). In contrast to the claimed invention, the handle of Riitano is not intended to be held between fingers of a user. Rather, the handle of Riitano is intended to be held by a chuck of a dental handpiece. Because of this difference, Riitano cannot be modified to have a handle that is soft enough to be recoverably deformable from a force applied by fingers of a user. In fact, if Riitano was modified so that the handle of the file was as soft as the gripping end of the claimed invention, the Riitano instrument would cease to function properly because the file would be too unstable between the retention arms of the chuck. The incompatibility of a soft gripping end with the Riitano invention is even more pronounced when dealing with handpieces that rotate the file at high revolution speeds. A modified handle that is recoverably deformable between gripping fingers would be too wobbly

and dangerous to use for its intended purpose. Accordingly, there is no motivation or suggestion to modify Riitano to arrive at the claimed invention.

In summary, one of ordinary skill in the art at the time the invention was made would interpret the cited portion of Riitano, pertaining to a handle made of deformable plastic, as referring to plastics that are much harder and more slippery than the claimed materials that are deformable between fingers. An example of such plastics referred to by Riitano is polyphenylene sulphide. This material would have been used because it can endure thermal and chemical disinfection required in the context of use of these kinds of instruments, and, in fact, such a material was referred to as prior art in the description of the current application as well. However, such plastics could certainly not be recoverably deformable between gripping fingers of a user, as claimed, nor would they have the claimed coefficient of friction. No mention is made in Riitano of a recoverably deformable material by a force applied by the gripping fingers; nor could there have been since it would have rendered the invention unsuitable for its intended purpose. Furthermore, the *material* of the handle of Riitano also lacks the coefficient of friction recited in the claim. Consequently, claim 1 is patentable over Riitano.

In view of the above, it is respectfully submitted that Riitano does not teach or suggest the invention of independent claim 1. Accordingly, claim 1 is patentable. By reason of their dependency from claim 1, either directly or indirectly, claims 3-12 are also patentable. Examiner is respectfully requested to withdraw the rejections of the claims.

Claims 5 and 9-11 are further distinguishable over Riitano because they recite that the gripping end, or its outer layer, is made of an elastomer having a hardness in the range of 10…95 Shore A. An example of a material that can have this property is silicone. This range is not

disclosed by a general reference to plastics; nor does the reference to plastics suggest a material with a hardness in the recited ranges. The vast majority of plastics have a hardness above the recited range. Furthermore, even if plastics exist that fall within the claimed range, the disclosure in the reference was not made with sufficient specificity to teach, suggest, or motivate one skilled in the art to choose a material in this range. Accordingly, claims 5 and 9-11 are further distinguishable over Riitano.

CONCLUSION

In view of the arguments presented above, it is submitted that the Examiner's rejections have been overcome and should be withdrawn. The application should now be in condition for allowance.

Should any changes to the claims and/or specification be deemed necessary to place the application in condition for allowance, the Examiner is respectfully requested to contact the undersigned to discuss the same.

This Response is being filed with a petition for a three-month extension of time and the required fee. In the event that any other extensions and/or fees are required for the entry of this Amendment, the Patent and Trademark Office is specifically authorized to charge such fee to Deposit Account No. 23-2820 in the name of Wolf, Block, Schorr & Solis-Cohen LLP. An early and favorable action on the merits is earnestly solicited.

Respectfully submitted,
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